Researchers at the University of Maryland School of Medicine will begin testing of an HIV vaccine which, they hope, will yield the first effective preventative treatment against the disease.

According to the Maryland Daily Record, the trial will involve 60 test subjects and will be led by Dr. Robert C. Gallo, director of UMD’s Institute of Human Virology and expert on HIV studies.

The trial, called Full Length Single Chain, began accepting volunteers for the Phase 1 trial; this stage is the first time the institute has used human test subjects with the vaccine.

It’s estimated that around 2.5 million deaths are prevented each year globally because of vaccines, and even the most commonplace vaccinations -- like annual flu shots -- often go through months, if not years, of testing before reaching human subjects in a lab.

Gallo’s vaccine is a little more complicated, however.

The Baltimore Business Journal reported that the trial is expected to take about a year to complete because the research team is taking extra precautions to ensure that the vaccine is as safe as possible.

Gallo told WBAL News that it took him about nine years to get to this stage in the vaccine.

He described the trial vaccine as “just a protein,” but it’s clear that this isn’t just any old protein. According to WBAL, the vaccine “is designed to induce a new kind of antibody to target infection right at the start, since the AIDS virus integrates within one day into human genes, and it becomes part of DNA in 24-36 hours.”

The trial will involve 60 subjects total, but only 20 subjects will receive the actual vaccine. Gallo stated that he expects to have his first subject injected with the vaccine by the end of the month.

If Phase 1 proves to be safe for further human trials, Gallo said he hopes to find a “one-two-punch” concoction which would mix his HIV vaccine with other specimens from researchers who have previously attempted to find an effective treatment.